IN THE CLAIMS:

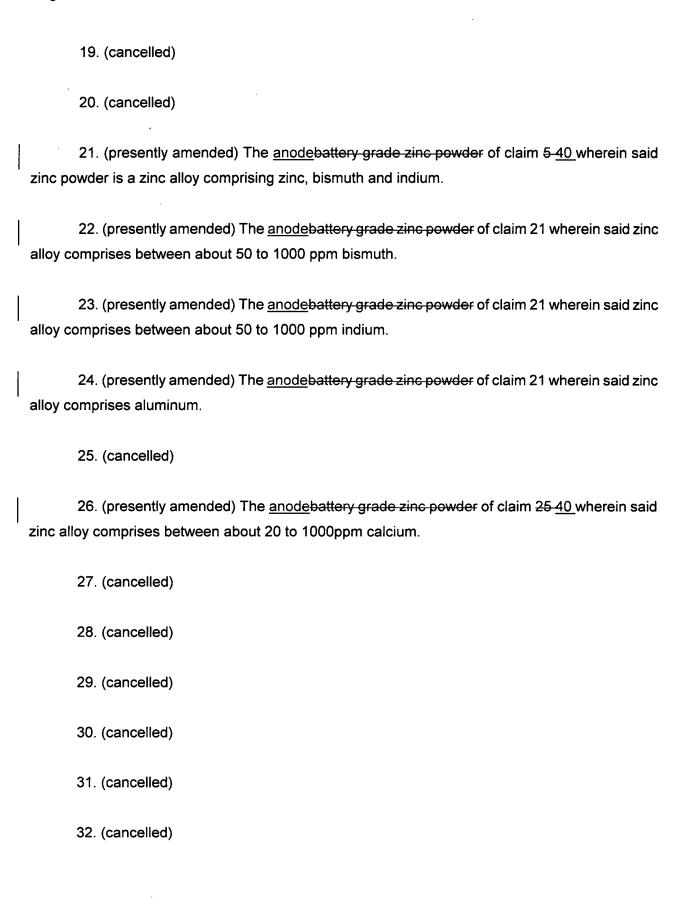
Please amend the claims as follows:

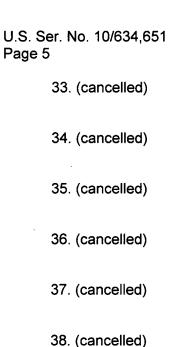
- 1. (withdrawn) Method for making a battery grade zinc powder, said method comprising the steps of:
 - (a) providing a molten zinc metal or a molten zinc alloy;
 - (b) subjecting said molten zinc metal or molten zinc alloy to impulse atomisation to produce a powder made up of solid particles of zinc metal or zinc alloy in the for of a battery grade zinc powder; and
 - (c) recovering said battery grade zinc powder.
- 2. (withdrawn) The method of claim 1 wherein in step (b) the impulse atomisation has a frequency of between 20 and 1000Hz, a force applied to the plunger of between about 44.5 and 40 newtons, a plunger distance of between 1 to 7 mm and atomising apertures of between 40 and 500µm.
- 3. (withdrawn) The method of claim 2 wherein in step (b) said particles are cooled in an atmosphere comprising a gas selected from the group consisting of air, inert gas, oxygen and a mixture of 0 to 20% oxygen with the remainder being inert gas.
- 4. (withdrawn) The method of claim 3 wherein said inert gas is selected from the group consisting of nitrogen, helium, argon and any mix of nitrogen, helium and argon.
 - 5. (cancelled)
- 6. (presently amended) The battery grade zinc powder anode of claim 540 wherein a major portion of said particles are teardrop.
 - 7. (presently amended) The anodebattery grade zinc powder of claim 6 wherein said

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particles have an average length between about 250µm and 3000µm.

- 8. (cancelled)
- 9. (presently amended) The <u>anodebattery grade zinc powder</u> of claim <u>40</u>5 wherein a major portion of said particles are acicular or stranded.
 - 10. (cancelled)
 - 11. (cancelled)
 - 12. (cancelled)
- 13. (presently amended) The <u>anodebattery grade zinc powder</u> of claim <u>5 40</u> wherein said particles have an average width between about 40µm and 1000µm.
- 14. (presently amended) The <u>anodebattery grade zinc powder</u> of claim <u>5–40</u> wherein said powder further comprises a second zinc metal or zinc alloy powder having different average characteristics in term of aspect ratio, width and length.
- 15. (presently amended) The <u>anodebattery grade zinc powder</u> of claim 5–40 further comprising up to about 50% of a fine zinc metal or zinc alloy powder having a particle size of less than about 75µm.
- 16. (presently amended) The <u>anodebattery grade zinc powder</u> of claim 15 wherein said fine zinc metal or zinc alloy powder is fabricated from the same zinc metal or zinc alloy as said zinc particles.
- 17. (presently amended) The <u>anodebattery grade zinc powder</u> of claim 15 comprising up to about 20% of said fine zinc metal or zinc alloy powder.
- 18. (presently amended) The <u>anodebattery grade zinc powder</u> of claim 5–<u>40</u> further comprising up to about 50% of a second zinc metal or zinc alloy powder having an average aspect ratio of about 2 and a particle size distribution between about 54μm and about 425μm.





39. (cancelled)

- 40. (presently amended) An anode for an electrochemical cell comprising the a-battery grade zinc powder of claim 5 comprising zinc metal or zinc alloy particles, said zinc metal or zinc alloy particles having an aspect ratio of between 8 and 22 and a particle size distribution with a log normal slope of 2, the zinc powder being suspended in a fluid medium.
 - 41. (original) The anode of claim 40 wherein said fluid medium is a gelled KOH electrolyte.
- 42. (original) The anode of claim 41 wherein said gelled KOH electrolyte comprises 98% by weight of KOH 40%/ZnO 3% and 2% by weight of a gelling agent.
- 43. (presently amended) The <u>anodebattery grade zinc powder</u> of claim 42 wherein said gelling agent is polyacrylic acid.
- 44. (withdrawn) An electrochemical cell comprising a cathode, an anode comprising the battery grade zinc powder of claim 5 and a separator electrically separating said cathode from said anode.
- 45. (withdrawn) The electrochemical cell of claim 44 wherein said cathode comprises manganese dioxide, wherein said fluid medium is a gelled KOH electrolyte and further comprising a current collector inserted into said anode.

- 46. (withdrawn) The electrochemical cell of claim 45 wherein said gelled KOH electrolyte comprises about 2% by weight of a gelling agent.
- 47. (withdrawn) The electrochemical cell of claim 46 wherein said gelling agent is a polyacrylic acid.
- 48. (withdrawn) The electrochemical cell of claim 47 wherein said polyacrylic acid is Carbopol™ 940.
- 49. (withdrawn) The electrochemical cell of claim 44 wherein said separator is fabricated from a material selected from the group consisting of rayon or cellulose.
 - 50. (withdrawn) A LR-06 electrochemical cell comprising:
 - a positive terminal fabricated from a conductive material;
 - a cathode in electrical contact with said positive terminal;
 - an anode comprising a battery grade zinc powder as defined in claim 5, said zinc powder being suspended in a gelled electrolyte;
 - a separator electronically separating said cathode and said anode; and
 - a current collector inserted into said anode:

wherein when a load of 1 ohm is placed between said positive terminal and said current collector, a cut-off voltage of 1.0 volts is reached in a time of greater than about 34 minutes.

- 51. (withdrawn) The LR-06 electrochemical cell of claim 50, wherein said cut-off voltage of 1.0 volts is reached in at least about 42 minutes.
 - 52. (withdrawn) A LR-06 electrochemical cell comprising:
 - a positive terminal fabricated from a conductive material;
 - a cathode in electrical contact with said positive terminal;
 - an anode comprising battery grade zinc powder as defined in claim 5, said zinc powder being suspended in a gelled electrolyte;
 - a separator electronically separating said cathode and said anode; and
 - a current collector inserted into said anode;

wherein when a current of 1 ampere is drawn by a load placed between said positive terminal and said current collector, a cut-off voltage of 1.0 volts is reached in a time of greater than about 36 minutes.

- 53. (withdrawn) The LR-06 electrochemical cell of claim 52, wherein said cut-off voltage of 1.0 volts is reached in at least about 45 minutes.
- 54. (withdrawn) A battery grade zinc powder comprising particles fabricated from a zinc alloy, said alloy consisting essentially of zinc, bismuth, indium and lead, said particles having a surface oxidation of less than 0.10 %, preferably less than about 0.06%.
- 55. (withdrawn) A battery grade zinc powder comprising particles fabricated from a zinc alloy, said alloy comprising zinc and aluminum, said particles exhibiting an alkaline aluminum loss of less than about 20% when immersed in KOH electrolyte.
 - 56. (withdrawn) A LR-06 electrochemical cell comprising:
 - a positive terminal fabricated from a conductive material;
 - a cathode in electrical contact with said positive terminal;
- an anode comprising a battery grade zinc powder as defined in claim 5, said zinc powder being suspended in a gelled electrolyte;
 - a separator electronically separating said cathode and said anode; and
 - a current collector inserted into said anode;
- wherein when a load of 1 ohm is placed between said positive terminal and said current collector, a cut-off voltage of 1.0 volts is reached in a time of greater than about 34 minutes.
- 57. (withdrawn) The LR-06 electrochemical cell of claim 56, wherein said cut-off voltage of 1.0 volts is reached in at least about 42 minutes.

- 58. (withdrawn) A LR-06 electrochemical cell comprising:
- a positive terminal fabricated from a conductive material;
- a cathode in electrical contact with said positive terminal;
- an anode comprising battery grade zinc powder as defined in claim 5, said zinc powder being suspended in a gelled electrolyte;
 - a separator electronically separating said cathode and said anode; and
 - a current collector inserted into said anode;

wherein when a current of 1 ampere is drawn by a load placed between said positive terminal and said current collector, a cut-off voltage of 1.0 volts is reached in a time of greater than about 36 minutes.

59. (withdrawn) The LR-06 electrochemical cell of claim 58, wherein said cut-off voltage of 1.0 volts is reached in at least about 45 minutes.